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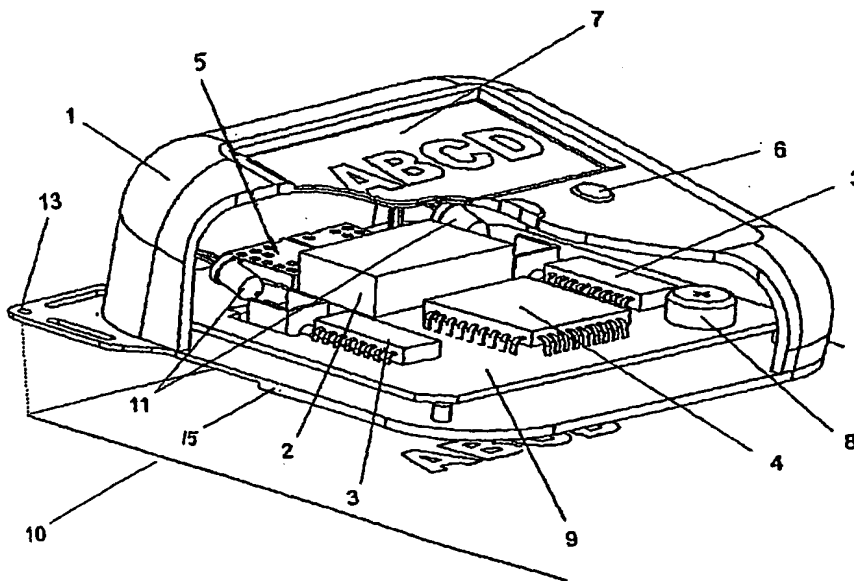
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(54) Title: METHOD FOR NAVIGATION WITH OPTICAL SENSORS, AND A DEVICE UTILIZING THE METHOD



(57) Abstract: A method for navigation and positioning with optical sensors moving over a surface. The sensors light up the surface and capture consecutive images. A reference image of a small area of the time is stored and the sensor follows said area in the sensor's field of view by predicting where to find said area from one capture to another. The prediction is based on regression and extrapolation. When the image closing in on the edge of the sensor's field of view a new reference image is captured and stored. Before the new reference image is used as reference, the position is updated using interpolation. The navigation information is obtained with high frequency suitable for real-time applications. The invention also relates to a device using said method.